

SOUTH CAROLINA PUBLIC SERVICE COMMISSION**DOCKET NO. 2019-185-E****DOCKET NO. 2019-186-E**

In the Matter of:)	DUKE ENERGY CAROLINAS,
)	LLC'S AND DUKE ENERGY
South Carolina Energy Freedom Act)	PROGRESS, LLC'S SECOND
(H.3659) Proceeding to Establish Each)	SET OF REQUESTS FOR
Electrical Utility's Standard Offer,)	PRODUCTION OF DOCUMENTS
Avoided Cost Methodologies, Form)	AND INTERROGATORIES TO
Contract Power Purchase Agreements,)	THE SOUTH CAROLINA
Commitment to Sell Forms, and Any)	SOLAR BUSINESS ALLIANCE
Other Terms or Conditions Necessary)	

Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (together, "Duke Energy" or the "Companies"), by and through their legal counsel, pursuant to Rule 103-833(C) of the Rules of Practice and Procedure of the South Carolina Public Service Commission, hereby serves the South Carolina Solar Business Alliance ("SCSBA") with the following Second Set of Requests for Production and Interrogatories to be answered under oath on or before twenty (20) days from the date of service.

Further, please take notice that these Requests for Production and Interrogatories are continuing in nature until the date of the hearing, and that any information or responsive materials identified after your responses have been served upon the undersigned counsel should be provided via supplemental discovery responses as soon as possible after such identification.

INSTRUCTIONS

1. Please produce the requested documents as they are kept in the usual course of business or to organize and label them to correspond with the categories in the Request. Documents attached to each other should not be separated.

2. In producing documents, furnish all documents known or available to you, regardless of whether such documents are possessed directly by you or your agents, employees, representatives, Witnesses, or by your attorneys.

3. If any document otherwise responsive to any Request was, but is no longer, in your possession, subject to your control or in existence, identify each document by listing its author(s) and addressee(s), date, subject matter, whether the document(s) or copies are still in existence (and if so, their locations and the custodians), as well as whether the document is missing or lost, has been destroyed, has been transferred voluntarily to others, or has been otherwise disposed of. In each instance, explain the circumstances surrounding such disposition and identify the person(s) directing or authorizing its destruction or transfer, and the date(s) of such direction or authorization.

4. If a privilege not to answer a Request is claimed, identify each matter as to which the privilege is claimed, the nature of the privilege, and the legal and factual basis for each such claim.

5. Unless otherwise stated, the relevant time period for these Requests is from January 1, 2019, until the present.

6. Each Request shall be reproduced at the beginning of the response thereto.

7. Please provide copies of the information responsive to each Request in native electronic working format with all data and formulas intact.

8. Please provide responses to the following data requests electronically. To the extent this is impracticable, the responses, including any responsive Documents, should be provided at the offices of Sowell, Gray, Robinson, Stepp & Laffitte, LLC, 1310 Gadsden Street, Columbia, South Carolina 29201, or some mutually convenient location otherwise agreed to by the parties.

DEFINITIONS

1. **“Affiliate”** means “affiliate” as defined by Rule 501(b) of Regulation D of the Securities and Exchange Commission and, with respect to any Facility, also any joint venture or other partner.

2. **“Communication”** means the transmittal of information in the form of facts, ideas, Documents, inquiries, or otherwise, including every discussion, conversation, conference, or telephone call.

3. **“Dockets”** means Commission Docket Nos. 201-185-E & 2019-186-E.

4. The term **“document”** is to be construed as broadly as permissible under Rule 34 of the South Carolina Rules of Civil Procedure and includes, but is not limited to, any printed, typewritten, handwritten, or otherwise recorded information of whatever character, including, but not limited to, letters, memoranda, notes, diaries, reports, records, calendars, charts, audio, and/or video tapes or discs, and photographs; computer programs or disks; electronic media records, however recorded and maintained, including, but not limited to, electronic mail, voicemail messages, digital photographs, and electronically scanned records of any type; recorded observations, statements, conversations, or formal affidavits. Any carbon or photocopy of any such materials upon which notations have been made and all drafts are also included.

5. **“Person”** means any natural person or any business, legal, or governmental entity or association.

6. The terms **“related to”** and **“relating to”** or any variation thereof shall be construed to include refer to, summarize, reflect, constitute, contain, embody, mention, show, comprise, evidence, discuss, describe, comment on, concerning, regarding, eluding

to, pertaining to, probative of, in connection with, dealing with, in respect of, about, involved, identifying, or proving.

7. **“You”** and **“your”** means the South Carolina Solar Business Alliance (“SCSBA”), SCSBA’s Witnesses in this proceeding, and all of its members, agents, representatives, and attorneys.

8. **“Identify,”** when referring to a Person, means to give, to the extent known, the Person’s full name, present or last known address, and when referring to a natural Person, additionally, the present or last known place of employment.

9. **“Identify,”** when referring to Documents, means to give, to the extent known, the (i) type of Document; (ii) general subject matter; (iii) date of the Document; and (iv) authors, addressees, and recipients.

10. **“Identify,”** when referring to an oral Communication, means to give, to the extent known, the identity of the speaker and of each Person who was present when the Communication was spoken, and the substance, date, and place of such Communication.

11. **“FERC”** means the Federal Energy Regulatory Commission.

12. **“Witnesses”** shall collectively mean the four witnesses (Mr. Steven Levitas, Mr. Jon Downey, Mr. Hamilton Davis, and Mr. Ed Burgess) whose testimony SCSBA pre-filed in the Dockets on September 11, 2019.

13. **“PURPA”** means Section 210 of the Public Utility Regulatory Policies Act of 1978, 16 U.S. Code § 824a–3, as well as the regulations established by the Federal Energy Regulatory Commission to implement PURPA, 18 C.F.R. 292.101 *et seq.*

INTERROGATORIES

SBA Witness Burgess

2-1. On page 73, beginning at Line 5, SBA witness Burgess asserts that “The unit commitment and dispatch procedures modeled in the Study may not match Duke’s actual practices and overestimate costs.” Please provide all analysis and identify and produce any documents that support this statement.

SBA Witness Levitas

2-2. On pages 4-5, Mr. Levitas addresses his experience with PURPA implementation, and highlights that he was “heavily involved with the development and passage of H.B. 589 in North Carolina, which modified the state’s implementation of PURPA . . .” Recognizing that North Carolina H.B. 589 introduced a significant new competitive procurement program to procure 2,660 MW of new solar resources in North Carolina or South Carolina at or below the utility’s avoided cost:

- a. Does Mr. Levitas agree that North Carolina’s implementation of PURPA is compliant with FERC’s implementing regulations and the PURPA law generally?
- b. Does Mr. Levitas agree that an independently-administered competitive procurement framework to procure new renewable energy capacity at or below the utility’s future avoided costs benefits electric consumers by enabling the utility to procure solar capacity at a lower price than under a traditional PURPA mandatory purchase obligation framework?
- c. Does Mr. Levitas agree that an independently-administered competitive procurement framework similar to the North Carolina CPRE Program can achieve additional benefits for electric consumers by enabling to the utility

to obtain rights to dispatch, operate and control QF resources to enable more cost-effective integration of such resources into the grid?

ANSWER:

2-3. On page 9, line 19 of Mr. Levitas' testimony, he states that a Seller should be allowed to terminate a PPA without liability if the interconnection facilities and network upgrades required to interconnect to the DEC or DEP system exceed \$75,000/MW. Please identify all solar generator qualifying facilities located in South Carolina owned or previously owned by SCSBA member companies or any of their Affiliates interconnected from January 1, 2016, to present whose interconnection facilities and network upgrade costs as these terms are used by Mr. Levitas exceed \$75,000/MW.

ANSWER:

2-4. Please identify the estimated percentage of future solar generator qualifying facilities committing to sell their output to DEC or DEP that Mr. Levitas believes will be assigned interconnection facilities and network upgrades less than \$75,000/MW to interconnect to the Duke DEC or DEP system.

ANSWER:

2-5. Does Mr. Levitas agree that an increasingly significant number of QFs will require construction of interconnection facilities and network upgrade costs that exceed \$75,000/MW as incremental utility scale solar is added to the DEC and DEP distribution and transmission systems in South Carolina? Please explain.

ANSWER:

2-6. If a QF is allowed to terminate a previously-established non-contractual Notice of Commitment and to withdraw its unilaterally-imposed non-contractual legally enforceable obligation to deliver capacity and energy from a solar QF over a future specified term on the basis that the projected cost of construction of interconnection facilities and network upgrades exceeds \$75,000/MW, as proposed by Mr. Levitas, does SBA and/or Mr. Levitas admit that the QF has not, in fact, made a binding and unequivocal commitment to sell its output to the utility?

ANSWER:

2-7. Referring to Mr. Levitas' statement at page 12, beginning at Line 20, that "FERC requires that PURPA PPAs be of sufficient length to give QFs a reasonable opportunity to attract capital to finance their projects" and his follow-on statement on page 13, line 3-6 that ". . . PPA tenor cannot be considered in a vacuum. Other things being equal, given Duke's aggressively low proposed avoided cost rates and proposed solar integration services charge, longer tenor will be needed than would be the case with a higher avoided cost rate. I also think that ability to attract capital should be considered with respect to an average QF developer, not the most sophisticated ones of those with the lowest cost of capital." please identify:

- a. Any Order or statement of position by FERC or a State Regulatory Authority tasked with implementing PURPA that Mr. Levitas relied upon to conclude that a State should offer longer term contracts during periods where the utility's avoided costs are lower.

- b. Any Order or statement of position by FERC or a State Regulatory Authority tasked with implementing PURPA that Mr. Levitas relied upon to conclude that a State should consider the level of sophistication of QF developers in determining the utility's avoided cost implementation framework.
- c. Please identify all States implementing the future specified term contract option under FERC's PURPA regulations, 18 C.F.R. 292.304(d)(2), that, in your view, comply with your interpretation of FERC's requirements that public utilities are obligated to offer PPAs of sufficient length to give QFs a reasonable opportunity to attract capital to finance their projects, as stated in your testimony above.
- d. Please identify all States implementing the future specified term contract option under FERC's PURPA regulations, 18 C.F.R. 292.304(d)(2), that, in your view, do not comply with your interpretation of FERC's requirements that public utilities are obligated to offer PPAs of sufficient length to give QFs a reasonable opportunity to attract capital to finance their projects, as stated in your testimony above.

ANSWER:

2-8. Referring to Mr. Levitas' statement at page 12, beginning at Line 20, that "FERC requires that PURPA PPAs be of sufficient length to give QFs a reasonable opportunity to attract capital to finance their projects" please identify whether Mr. Levitas is aware of solar generator qualifying facility projects that have executed PPAs with a

contract tenor of less than 10 years since January 1, 2018. For each PPA identified, please provide the year the QF executed the PPA, the PPA tenor, and the utility obligated to purchase the QF's output.

ANSWER:

2-9. Referring to SBA witness Levitas' testimony beginning on page 14, line 20, stating, "I think the value of \$5,000 per MW AC contained in the Consumers PPAs is reasonable up to the first 20 MW of AC capacity. Above 20 MW, I would recommend liquidated damages in the amount of \$2,000 MW AC."

- a. Please clarify if you meant that the first 20 MWs of nameplate capacity is equal to \$5000 per MW plus \$2000 per MW for any capacity exceeding 20 MW.
- b. Please explain Your understanding of the liquidated damages provisions that Consumers Energy requires in non-standard offer QF PPAs.

ANSWER:

2-10. Referring to SBA witness Levitas' testimony beginning on page 14, line 20, stating, "I think the value of \$5,000 per MW AC contained in the Consumers PPAs is reasonable up to the first 20 MW of AC capacity. Above 20 MW, I would recommend liquidated damages in the amount of \$2,000 MW AC."

- a. Please explain the economic basis for Mr. Levitas' proposed liquidated damages formula including any assumptions, pricing or other factors that

went into or were taken into account in Mr. Levitas' calculation of the proposed liquidated damages formula amount.

- b. Please explain why the liquidated damages value per MW AC should be reduced for a QF with a nameplate capacity exceeding 20 MW relative to a QF with a nameplate capacity 20 MW or less, including identifying any other utility PPAs that provide a similar adjustment to the formula used to calculate liquidated damages.

ANSWER:

2-11. On Page 21, Line 22 of SBA witness Levitas' testimony, Mr. Levitas uses the term "demonstrable utility recalcitrance." Please provide a citation for this quote.

ANSWER:

2-12. Regarding SBA witness Levitas' testimony on page 25, lines 7-12 addressing the requirement in the Company's Notice of Commitment Form that all environmental permits and land-use approvals must be obtained prior to establishing a non-contractual legally enforceable obligation, Mr. Levitas states that "It is unreasonable to expect a QF to incur these expenses until it has secured a price for its output so that it can in turn secure financing for the project."

- a. Please explain in detail the point in the development process for a solar QF at which financing is secured for the project. To the extent Mr. Levitas' experience is that there is not a single point in the process for all solar QFs, please describe the reasonably anticipated range of timing during the

development process and identify any specific factors that make it more likely for financing to be secured later or earlier in the development process.

ANSWER:

2-13. Please identify all environmental permits and land-use approvals that may be required when developing a solar generator qualifying facility in South Carolina. For each environmental permit or land use approval identified in response to this interrogatory, please also identify the timeframe during the solar QF development process that permit/approval is secured relative to (a) issuance of system impact study report by the utility; (b) the utility's delivery of a final Interconnection Agreement for execution by the QF and (c) after construction of the Facility commences.

ANSWER:

2-14. Recognizing that Act 62 expressly requires the Commission to review and approve DEC's and DEP's methodology for calculating avoided costs, Standard Offer, as well as Large QF form of PPA, please describe the circumstances in which Mr. Levitas or SBA believes that a QF developer would reasonably need to rely upon a non-contractual LEO established through a Notice of Commitment Form versus executing a Commission-approved form of PPA?

ANSWER:

2-15. Referring to Mr. Levitas' testimony at page 26 opposing the requirement of Duke's Notice of Commitment Form that a QF establishing a non-contractual LEO must

commit to being capable of delivering power within 365 days of submitting the Notice of Commitment Form, do you admit that others states' PUPRA implementation require similar time periods (**Idaho**, for example, requires a QF to commit to deliver power within 365 days), shorter time periods (for example, **Texas** – 90 days in Tex. P.U.C. Substantive Rule 25.242(f)(1)(B)) or even require that the QF actually be physically interconnected to the utility's system in order to unilaterally establish a non-contractual LEO (**New Mexico** – New Mexico Administrative Code of Regulations 17.9.570.9(A))?

ANSWER:

2-16. Referring to SBA witness Levitas' testimony beginning on page 21, line 6, stating, "parties wishing to sell energy to Duke have nowhere else to sell their power," do you admit that QFs interconnecting with DEC or DEP have wholesale market access and the right under 18. C.F.R. 292.303(a)(2) to wheel their power and to indirectly sell power to other utilities at avoided costs?

ANSWER:

2-17. Please explain Mr. Levitas' use of the phrase "no practical access to wholesale markets" as used by Mr. Levitas on page 32, lines 9-10, and identify whether Mr. Levitas is aware of any QFs which have executed contracts within the last two years (since January 1, 2018) to deliver power to a utility other than the utility to which the QF is interconnected. Please identify the State, the interconnected utility, and the utility to which the QF is selling and delivering power.

ANSWER:

SBA Witness Downey

2-18. Referring to SBA witness Downey's testimony beginning on page 3, line 20 that "To date, our development portfolio includes over 800 megawatts spanning approximately 141 assets with more than \$1 billion in solar assets sold."

- a. Please identify whether each of the 141 projects referenced by Mr. Downey are in development or have been placed into commercial operation. For each project that has not achieved commercial operation, please identify the phase of development of the Project as represented in Mr. Downey's Figure 1 and testimony on Page 5, Line 3 to Page 7 Line 2.
- b. For each project developed by Southern Current that has been developed by Southern Current and has now been placed into commercial operation, please identify whether Southern Current continues to own and operate the solar generator qualifying facility or whether Southern Current has sold or transferred ownership of the solar generator qualifying facility.

ANSWER:

2-19. Referring to the phases of development of solar generator projects in South Carolina as represented in Mr. Downey's Figure 1 and testimony on Page 5, Line 3 to Page 7 Line 2, please explain in detail the phase in the development process for a solar QF at which financing is secured for the project. To the extent Mr. Downey's experience is that there is not a single phase in the process for all solar QFs, please describe the reasonably anticipated range of timing during the development process and identify any specific

factors that make it more likely for financing to be secured later or earlier in the development process.

ANSWER:

2-20. Referring to SBA witness Downey's testimony beginning on page 3, line 20 that "To date, our development portfolio includes over 800 megawatts spanning approximately 141 assets with more than \$1 billion in solar assets sold."

- a. Please identify the percentage of the projects included in the \$1 billion in solar assets sold by Southern Current that have been sold to investors or other entities with their primary place of business in South Carolina.
- b. Please identify the percentage of the projects included in the \$1 billion in solar assets sold by Southern Current where a lender or tax equity investor that participated in financing the project had a primary place of business in South Carolina.

ANSWER:

2-21. Referring to SBA witness Downey's testimony beginning on page 9, line 10, that "the interconnection process [is] a source of substantial project risk," does SBA obtain financing to construct solar QF projects prior to completing the interconnection process and receiving an Interconnection Agreement from the interconnecting utility? Please explain.

ANSWER:

2-22. Referring to SBA witness Downey's testimony beginning on page 10, line 14, that "competition is the engine that drives innovation and job creation in the U.S. economy, but it also creates opportunities to lower costs and provide choices to consumers," please explain whether Mr. Downey agrees that:

- a. The utility's administratively-determined avoided capacity and energy costs are not competitively established and are based upon the utility's anticipated future costs to be avoided by purchasing power from the QF.
- b. A QF delivering power at the utility's administratively-determined avoided costs does not, in fact, lower costs for consumers, because avoided costs, if fully and accurately calculated, are designed to keep electric consumers indifferent from whether power is generated by the utility or purchased from a QF.
- c. An independently-administered competitive solicitation process where the price of power delivered is based upon actual competition between bidders can deliver power at prices below the utility's administratively determined avoided cost and thereby benefit consumers.

ANSWER:

2-23. On page 4, lines 1-3 of Mr. Downey's testimony, he states that "Since 2017, the SC Department of Commerce has announced over \$800 million of planned investment by Southern Current to construct nearly 700 megawatts of new solar facilities." Please describe the amount of actual investment that has been made by Southern Current, relative to the \$800 million of planned investment. Please identify the number of Facilities

associated with the \$800 million of planned investment. For each of those Facilities, please identify whether or not the Facility is operational.

ANSWER:

SBA Witness Hamilton Davis

2-24. Referring to Mr. Davis' testimony beginning on page 13, line 14 that SPPs are only paid for the power and capacity actually delivered to the grid, so, if a solar project is abandoned midstream like these nuclear units, it's the SPP that bears the cost and not the ratepayer."

- a. Please explain Your understanding of why DEC elected to "abandon" development of the Lee Nuclear Station.
- b. If a utility's avoided cost changes after a QF has signed a PPA or established a non-contractual legally enforceable obligation such that the cost of purchasing energy and capacity from the QF over a future contract term is no longer economic or cost effective relative to other capacity and energy options, would the utility be able to "abandon" or renegotiate the PPA with the QF to mitigate the excessive costs for electric consumers?

ANSWER:

2-25. Referring to Mr. Davis' testimony beginning on page 8, line 21 that "Although Duke's avoided cost projections have declined since those PPAs were entered into, it is just as likely that avoided cost projections will rise in the future, as (for example) natural gas prices rise, as they are ultimately expected to do. FERC relied on precisely this

expectation when it established the basic requirement for long-term fixed-price PURPA PPAs, observing in Order No. 69 that “in the long run, ‘overestimations’ and ‘underestimations’ of avoided costs will balance out,” leaving the ratepayer unharmed,” please identify any Commission orders, other documents or specific examples from any other State in the country that support your suggestion that overestimations of long-term fixed forecasted avoided costs have been balanced out by future underestimations leaving the ratepayer unharmed at any time since FERC issued Order No. 69 in 1980.

ANSWER:

2-26. On page 16, lines 7-9, Mr. Davis states that “Competition should and does drive costs down over time, and this is to the benefit of ratepayers, as well as to the SPPs that are able to effectively manage costs in a competitive, lower-cost environment.” Please describe how competition can drive down costs to the benefit of ratepayers where avoided cost is administratively set pursuant to PURPA.

ANSWER:

2-27. On page 6, lines 1-2, Mr. Davis states that Act 62 does not “intend for this Commission to take a ‘business as usual’ approach to approving utilities’ avoided cost proposals,” and specifically that “Act 62 is a shift away from a ‘business as usual’ regulatory approach, which primarily advantages the traditional utility business model. . . .”

- a. Please identify any specific provisions of South Carolina law that create a regulatory approach primarily advantaging the traditional utility business

model as it relates to avoided cost and PURPA implementation. Please describe how Act 62 amended such identified provisions of South Carolina law.

ANSWER:

REQUESTS FOR PRODUCTION

2-1. Please produce any and all documents identified, referred to, or relied upon in preparing your response to Duke Energy's Second Set of Interrogatories to SBA.

RESPONSE:

2-2. On page 32, lines 14-15, of Mr. Levitas's testimony, he states, "Given the proposed value of the cap, this will very likely preclude any further QF development in South Carolina." Please provide all Documents, including internal memoranda, studies, and Communications, on which You relied in developing this conclusion.

RESPONSE:

2-3. Referring to SBA witness Downey's testimony beginning on page 3, line 20 that "To date, our development portfolio includes over 800 megawatts spanning approximately 141 assets with more than \$1 billion in solar assets sold" please produce workpapers or documents that support these statements.

RESPONSE:

2-4. Referring to SBA witness Downey's testimony beginning on page 3, line 20 that Southern Current has sold "more than \$1 billion in solar assets," for the period January 1, 2018 to present, please identify and produce all Documents concerning projections of, or reporting of, margins, profits, rate of return, internal rate of return, or

return on equity of relating to Southern Current's or any of Southern Current's affiliates development of solar QFs in South Carolina. This request specifically includes any such Documents developed solely for internal use by Southern Current and its affiliates.

RESPONSE:

2-5. Referring to SBA witness Downey's testimony beginning on page 3, line 20 that Southern Current has sold "more than \$1 billion in solar assets," for the period January 1, 2018 to present, please identify and produce all Documents provided by Southern Current or any affiliate or agent of Southern Current to any current or prospective investor, lender, or tax equity investor, relating to projections of, or reporting of, margins, profits, rate of return, internal rate of return, or return on equity Southern Current's development of solar QFs in South Carolina.

RESPONSE:

Dated this 20th day of September, 2019.

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